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- wherein the catalyst comprises at least 1 weight % Pd; and converting the furfural, guaiacol or substituted guaiacol to a hydrogenated product.
- 3. The method of claim 2 wherein the liquid comprises guaiacol or a substituted guaiacol;
  - wherein the guaiacol or substituted guaiacol is reacted with hydrogen at a temperature of at least about 250° C.,
  - wherein the hydrogenated product comprises 2-methoxyphenol or other cyclohexanol derivatives, and
  - wherein at least about 50% of the guaiacol or substituted 10 guaiacols are converted to 2-methoxy-phenol or other cyclohexanol derivatives.
- 4. The method of claim 2 wherein the catalyst consists essentially of Pd disposed on a support.
- 5. The method of claim 2 wherein the liquid comprises 15 at least 1 weight % Pd.
  - wherein the step of reacting the furfural with hydrogen over a catalyst is carried out at a temperature of at least 280° C.; and
- 6. The method of claim 2 wherein the liquid comprises furfural;
  - and wherein at least 6% of the furfural is converted to 2-methyl-tetrahydrofuran.

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- 7. The method of claim 6 wherein the step of reacting the furfural with hydrogen over a catalyst is carried out at a temperature of at about 250° C. to about 300° C.
- **8**. The method of claim **2** wherein the catalyst comprises 2 5 to 5 weight % Pd.
  - 9. The method of claim 2 wherein the catalyst comprises Pd metal particles dispersed on a support selected from the group consisting of carbon, titania, and zirconia.
  - 10. The method of claim 3 wherein about 50% to about 80% of the guaiacol or substituted guaiacols are converted to 2-methoxy-phenol or other cyclohexanol derivatives.
  - 11. The method of claim 6 wherein at least 90% of the furfural is consumed by the reaction with hydrogen.
  - 12. The method of claim 3 wherein the catalyst comprises
  - 13. The method of claim 12 wherein the catalyst comprises Pd metal particles dispersed on a support selected from the group consisting of carbon, titania, and zirconia.
- 14. The method of claim 9 wherein the liquid comprises wherein at least 5% of the furfural is converted to 1-pen- 20 furfural; and wherein at least 6% of the furfural is converted to 2-methyl-tetrahydrofuran.
  - 15. The method of claim 2 wherein the furfural, guaiacol or substituted guaiacol are present in a bio-oil.